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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/407,475	09/28/1999	WILLIAM J. MAYER	99AB133	2818

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JOHN J HORN ESQ
ALLEN BRADLEY COMPANY
PATENT DEPT 704P
P O BOX 2086 8TH FLOOR T29
MILWAUKEE, WI 532019814

EXAMINER	
NGUYEN, DANNY	
ART UNIT	**PAPER NUMBER**
2836	

DATE MAILED: 01/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Offic Action Summary	Application N .	Applicant(s)	
	09/407,475	MAYER ET AL.	
	Examiner	Art Unit	
	Danny Nguyen	2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 September 1999* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Page 24, Lines 2 and 4, the phrase "The plurality" is unclear because which plurality is meant is unclear.

Lines 10 and 15 the phrase "a switch for" and "an indicator for" are unclear. What do they refer to?

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zomchek et al. (USPN 6,301,091) in view of Cook et al. (USPN 4,897,606).

Regarding to claims 1, 3, 8, 9, 17, Zomchek et al. disclose a safety switching apparatus comprises a control configuration (see cols. 1 and 2, lines 63-10) for selectively linking and de-linking the voltage lines to and from the device; a controller (control circuit 16, see fig. 1) for controlling the control configuration. Zomchek et al. do

not disclose a ground configuration as claimed. Cook et al. disclose a ground configuration (such as ground contactor GC1-1 and ground relay GC1, see cols. 2, 3, lines 65-6) for linking the input nodes to ground when the voltage lines are de-linked from the device. It would have been obvious to one having skill in the art at the time the invention was made to modify the safety relay circuit of Zomchek with a ground configuration as taught by Cook et al. in order to detect power line fault to ground (Cook et al., col. 2 and 3, lines 65 - 1).

Regarding to claim 2, Zomchek et al. disclose the control configuration includes an isolation contactor including one normally open (NO) isolation contact (normal open contact K12) for each voltage line and including an isolation coil (coil K1i), each isolation contact linking an associated line to a separate intermediate node adjacent the device, the controller provision of current to the isolation coil.

Regarding to claim 4, Zomchek et al. disclose the controller includes at least one safety contact (K21) in series with the isolation coil (K1i) and a switch (18) for opening and closing the safety contact.

Regarding to claims 5, 6, 7, Zomchek et al. disclose all limitations of claim 4 except for having an indicator. Cook et al. disclose an indicator (19). It would have been obvious to one having skill in the art at the time the invention was made to modify the safety relay circuit of Zomchek with an indicator as taught by Cook et al. in order to indicate the status of the circuit.

Regarding to claims 10,11,13, and15, Zomchek disclose the safety contact is a first safety contact (K21) and further including a second NO safety contact (K12) which

is also controlled by the switch (18), a control relay including a first NO control relay contact and a control relay coil (see cols. 1 and 2, lines 63-10), the first and second safety contacts forming a parallel contact pair, the pair in series with the control relay and a power source (30).

Regarding to claims 12, 14, Zomchek et al. disclose all limitations of claims 10 except for having a ground coil and the ground coil. Cook et al. disclose a ground coil (GC1). It would have been obvious to one having skill in the art at the time the invention was made to modify the safety relay circuit of Zomchek with a ground coil as taught by Cook et al. in order to detect power line fault to ground (Cook et al., col. 2 and 3, lines 65- 1).

Regarding to claim 16, Zomchek et al. disclose the isolation contacts are first isolation contacts (K11, K12, K13), and further including a second isolation contactor including a separate NO second isolation contact (K24) for each voltage line and a second isolation coil (K2i), each second isolation contact in series with a separate one of the first isolation contacts (such as K14 and K23), the control circuit also for controlling current to the second isolation coil.

Regarding to claims 18, 19, Zomchek et al. disclose a safety switching apparatus comprises a first and second voltage rails (L1 and L2); an isolation contactor including normal open contact and one normal closed contact for each voltage line and including an isolation coil each isolation contact linking an associated line to a separate intermediate node adjacent the device (see cols. 1 and 2, lines 63-10); at least one safety contact (ES10 in series with the isolation coil (K1i) between the rails; a control

circuit (control circuit 16) for controlling at one safety contact; a switch (18) linked to the control circuit for closing and opening the safety contact. Zomchek et al. do not disclose a ground contactor as claimed. Cook et al. disclose a ground contactor (such as ground contactor GC1-1, see cols. 2, 3, lines 65-6) including one normal open contact for each line and including a ground coil (GC1), which is in series with the normal closed contact between the rails (see fig. 1). It would have been obvious to one having skill in the art at the time the invention was made to modify the safety relay circuit of Zomchek with a ground contactor and ground coil as taught by Cook et al. in order to detect power line fault to ground (Cook et al., col. 2 and 3, lines 65- 1).

Claims 20-21 repeat the limitations of claims 5 and 8, therefore rejected accordingly.

Regarding to claim 22, Zomchek et al. disclose a safety switching system for using with a line which includes plurality of station (see col. 1, lines 18-30), the plurality linkable to voltage supply lines (L1, L2), each station having an access, the system for remotely facilitating electronic isolation of the plurality and for indicating the isolation on an access by access, the system comprises a control configuration (see cols. 1 and 2, lines 63-10) for selectively linking and de-linking the voltage lines to and from the plurality respectively; a switch (18) for and positioned proximate each access, each switch positionable in at least a first position wherein the switch causes the control configuration to link the voltage lines to the plurality, and a second configuration (see cols. 1 and 2, lines 63-10) to de-link the voltage lines from the plurality. Zomchek et al. do not disclose a ground configuration and indicator as claimed. Cook et al. disclose a

ground configuration (such as ground contactor GC1-1 and ground relay GC1, see cols. 2, 3, lines 65-6) for linking the input nodes to ground when the voltage lines are de-linked from the plurality and an indicator (19). It would have been obvious to one having skill in the art at the time the invention was made to modify the safety relay circuit of Zomchek with a ground configuration and an indicator as taught by Cook et al. in order to detect power line fault to ground (Cook et al., col. 2 and 3, lines 65- 1).

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danny Nguyen whose telephone number is (703)-305-5988. The examiner can normally be reached on Mon to Fri 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (703)-308-3119. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-872-9318 for regular communications and (703)-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-0956.

DN

DN
January 8, 2003

BRIAN SIRCUS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800